

STATE OF CALIFORNIA
OFFICE OF THE ADJUTANT GENERAL
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CAL ARNG Regulation
No. 350-3

28 November 1989

Training
TRAINING IN EXTREME HEAT

1. PURPOSE. This regulation promulgates policy for the planning and conduct of training in extreme heat. Heat stress conditions are established using the Wet Bulb Globe Temperature Index (WBGT). This index combines shade, air temperature, radiation, humidity and wind into a single value to be used as a guide for outdoor activity.

2. RESPONSIBILITY. a. Commanders and supervisors must be involved in the education program relating to heat injury because their decisions and judgments must be based upon adequate knowledge of factors that insure protection of their personnel. The use of prudent judgment to preclude inordinate heat stress is essential. The decision to modify or cancel training in heat alerts rests with the appropriate field commander.

b. Commanders and supervisors are responsible for the understanding and interpretation of the Wet Bulb Globe Temperature (WBGT) index and conducting activities accordingly. All physical activities must be evaluated at the site of training by the commander/supervisor to determine the degree of heat stress on the participants. Supervisors and responsible officers must, in addition, be able to recognize the earliest signs of heat injury and the appropriate action to prevent its occurrence. All personnel should be able to apply effective first aid.

c. Post commanders are responsible to provide each senior field/troop commander WBGT readings beginning with Category I and progressive readings at the time of change. The Installation Range Officer will determine the WBGT reading daily starting no later than 1100 hours and each subsequent hour through the training day. The WBGT index will be announced on the Range Central Net (FM 38.90) hourly during the "extreme heat" season. In addition to FM, each major training headquarters will be notified by telephone. Additionally, post commanders will be responsible for the appropriate distribution of GTA 8-5-39, Heat Injuries.

d. Where necessary, troop commanders will reschedule training when training is suspended due to excessive heat, or when a slow down of scheduled training is effected.

*This regulation supersedes CAL ARNGR 350-3, dated 20 March 1980.

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3. POLICIES. The WBGT index serves as the basis for the Heat Alert Warning System which will be followed by all levels of command as a governing factor in regulating the intensity and duration of outdoor physical activity. Heat alert categories are as follows:

a. Category I (WBGT 82° - 84.9°F). In addition to the measures below, commanders and supervisory personnel may make additional modifications as deemed appropriate.

(1) Discretion should be used in planning heavy exercises for troops not acclimatized to the area. Normal activity will continue for acclimated, but limit intense physical activity and exposure to sun for nonacclimated.

(2) Utility uniform shirts will be worn outside of the trousers with sleeves rolled up above the elbow.

(3) Steel helmets and web equipment will be removed unless actually required for safety or conduct of training.

b. Category II (WBGT 85° - 87.9°F). In addition to the measures taken above, the following preventive measures will be taken:

(1) Cancel outdoor classes in direct sun and intense physical activity like prolonged marching for nonacclimated.

(2) Limit intense physical activity and exposure to sun for acclimated.

(3) Commander/supervisor alertness to heat casualty symptoms will be increased.

c. Category III (WBGT 88° - 89.9°F). At this level major modification of activities will occur.

(1) Cancel all physical training and strenuous activities for nonacclimated.

(2) Minimize strenuous outdoor activities for all personnel with less than 12 weeks in hot weather. Thoroughly acclimated personnel may engage in limited activity not to exceed six hours a day.

(3) Activities should be at a generally slowed pace, with maximum protection from the sun.

(4) Running will be halted except in those situations where minimal re-running for short duration is necessary in support of training objectives.

(5) Transportation with overhead protection should be used where available.

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(6) Work details in direct sunlight will be limited.

(7) Personnel should drink more water, and breaks should be more frequent and longer in duration. If salt is taken, plain salt tablets will not be used. The tablets disintegrate rapidly and are not readily absorbed and may cause gastro-intestinal disturbance. The proper alternative is to salt drinking water.

d. Category IV (WBGT 90° and above - RED FLAG). The risk to personnel at this heat stress level exceeds the benefits of continued training. In addition to those measures taken in Category III, the following action will be taken:

(1) Cancel strenuous activity and nonessential outdoor physical activity and resume only under provisions identified in Category III. This is for both acclimated and nonacclimated individuals.

(2) Lecture type training in the shade or other such training that does not require gross physical activity should be conducted.

4. EDUCATION. Successful prevention of heat casualties depends largely upon the education of personnel exposed to heat and especially upon those charged with supervision. Recognition of early signs of heat injury is important. All personnel exposed to unaccustomed high temperatures should be fully informed of the potential serious result, the prevention, the recognition, and the treatment of heat injuries prior to the actual conduct of training. All personnel should have in their possession GTA 8-5-39. Training involves developing procedures to alert individuals to the existence of dangerous heat stress levels, applying measures to reduce both the severity and duration of the exposure, and adopting techniques to increase the resistance of exposed personnel. The wearing of both armor or NBC warfare protective uniforms in effect adds 10°F to the measured WBGT. Limits should be adjusted appropriately. All commanders and supervisors must evaluate the physical activity at the training site and determine the degree of heat stress. It is important to note that the WBGT index may vary significantly between the measurement site and the area of training.

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